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Filed : October 5, 2001

REMARKS

The Examiner's Office Action dated April 19, 2005 has been received and its contents carefully considered. Applicants request entry of the following amendments set forth above and a one month extension of time. In the Office Action, the Examiner rejected all pending, non-withdrawn claims, namely Claims 1-15, 20-29 and 46-49. Based on Applicants' earlier election filed March 30, 2005, Claims 16-19 and 30-45 are withdrawn from consideration.

Rejected Claims

The Examiner rejected Claims 1-4, 20, 22-24, 46 and 48-49 (hereinafter 'first claim set') as being unpatentable under 35 U.S.C. § 103 based on the Bowie reference (U.S. Patent No.: 5,956,323) in view of the Glas article entitled The Principles of Spread Spectrum Communications. Claims 1, 20 and 46 are independent claims and, as a result, the following discussion focuses on these claims.

The Examiner also rejected Claims 5-15, 21, 25-29, and 47 (hereinafter 'second claim set') as being unpatentable under 35 U.S.C. § 103 based on the Bowie reference (U.S. Patent No.: 5,956,323) in view of the Glas article entitled The Principles of Spread Spectrum Communications and in view of the Usui reference (U.S. Patent No.: 6,237,013). Claims 5, 10, and 25 are independent claims and, as a result, the following discussion focuses on these claims.

Teaching of Prior Art

In the Office Action the Examiner relies on the Bowie reference for teaching communication device activation, such as a signal generator, transmitter, and a controller. The Examiner admits that the Bowie reference does not disclose generating and transmitting a sequence signal. The Examiner cites the Glas article for using a spread spectrum technique, specifically direct sequence signals, to transmit signals in communication systems. The Examiner rejected the first claim set based on this combination.

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For the second claim set the Examiner repeated this combination and further relied on the Usui reference. The Examiner admits that Bowie and Glas do not specifically disclose that the detector comprises a correlator to correlate the received sequence signals and a comparator to compare the correlated sequence signal to one or more threshold values in order to determine whether to initiate a warm start process.

For both the first claim set and the second claim set the Examiner alleges that:

It would have been obvious to one of ordinary skill in the art to modify the Bowie system to generate and transmit direct sequence signal as communication device activation requests. It would be advantageous to use direct sequence signals because they have a lower power spectral density, they use the whole frequency spectrum to limit interference, and they use random unknown codes to make it difficult for a hostile user to intercept the signal [page 1].

Rules/Law Regarding Combination of References

The following sets forth the rules and law that controls combination of references.

As stated by the Court of Appeals for the Federal Circuit, “[v]irtually all inventions are combinations and virtually all are combinations of old elements.” Intel Corp. v. U.S. Int’l Trade Comm., 946 F.2d 821, 842, 20 U.S.P.Q.2d 1161, 1179 (Fed. Cir. 1991). Nonetheless, “it may be that the combination of the old elements is novel and patentable.” Clearstream Wastewater Sys. v. Hydro-Action, Inc., 206 F.3d 1440, 1444, 54 U.S.P.Q.2d 1185, 1189 (Fed. Cir. 2000).

Furthermore, as set forth in In re Jeffrey B. Gorman, 933 F.2d 982 (Fed. Cir. 1991), it is well established that a determination of whether a new combination of known elements would have been obvious to one of ordinary skill depends on various factors. When the references are all in the same or analogous fields the test is whether the teachings of the prior art, taken as a whole, would have made obvious the claimed invention. See In re Young, 927 F.2d 588, 591, 18 U.S.P.Q.2D (BNA) 1089, 1091 (Fed. Cir. 1991).

When it is necessary to select elements of various teachings in order to form the claimed invention, one must ascertain whether there is any suggestion or motivation in the prior art to make the combination made by the applicant. Interconnect Planning Corp. v. Feil, 774 F.2d

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1132, 1143, 227 U.S.P.Q. (BNA) 543, 551 (Fed. Cir. 1985). "Obviousness can not be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination." In re Bond, 910 F.2d 831, 834, 15 U.S.P.Q.2D (BNA) 1566, 1568 (Fed. Cir. 1990) (quoting Carella v. Starlight Archery and Pro Line Co., 804 F.2d 135, 140, 231 U.S.P.Q. (BNA) 644, 647 (Fed. Cir. 1986)).

The extent to which such suggestion must be explicit in, or may be fairly inferred from, the references, is decided on the facts of each case, in light of the prior art and its relationship to the applicant's invention. As in all determinations under 35 U.S.C. § 103, the decision maker must bring judgment to bear. It is impermissible, however, simply to engage in a hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps. Interconnect Planning, 774 F.2d at 1143, 227 U.S.P.Q. (BNA) at 551. The references themselves must provide some teaching whereby the applicant's combination would have been obvious.

Applicant's Response to Rejection

In response to the Examiner's rejection, and working from this understanding of the rules/law that governs combination of references, the Applicants request reconsideration. The Applicants submit that the Examiner has improperly combined these references to arrive at the claimed invention. While the Examiner has identified individual references which show individual elements of the claimed invention, for a combination of references to be proper and obviate the invention, there must be a suggestion or motivation, to combine reference teachings. MPEP 706.02(j); ACS Hospital Sys., Inc., v. Montefiore Hospital, 732 F.2d 1572 (Fed. Cir. 1984). The Federal Circuit has specifically cautioned against the selection of prior art using hindsight, where the art is selected based upon the solution rather than the problem to be solved. Monarch Knitting Machinery Corp. v. Fukuhara Indus. & Trading Co., 139 F.3d 1009 (Fed. Cir. 1998).

In particular, the Examiner has simply located a reference which teaches direct sequence signals, namely the Glas article, and combined the teachings with the other reference(s) to arrive at the claimed invention. Simply stated, there is not any suggestion or motivation to combine the

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Bowie reference and the Glas article contained within either document. Likewise, there is no such motivation or suggestion that would be generally understood by one of ordinary skill in the art. Absent such a motivation or suggestion, these references can not be combined.

To the extent the Examiner alleges such motivation or suggestion, the Examiner simply quoted verbatim text from the first page of the Glas article. Applicants respectfully submit that these citations are not a suggestion or motivation to combine, but instead are alleged desirable aspects of the direct sequence signal that are not related to the combination. Reciting desirable features of one element of the claimed invention is not a motivation to combine this element with the other elements to create the claimed system.

Furthermore, the features the Examiner cites as a motive or suggestion to combine would not motivate such a combination because these features do not benefit the claimed system/method. For example, the Examiner asserts that “using random unknown codes to make it difficult for a hostile user to intercept the signal” is a motivation to combine. However, the claimed system does not operate in a hostile environment nor is a re-activation signal the type of signal that would be subject to hostile interception. The activation signal simply re-starts a sleeping modem or communication device and is not sensitive data which is subject to interception.

In addition, the Examiner alleges that such signals use the whole frequency spectrum. The Glas article, from which this is copied, cites this as benefit of spread spectrum communications, which is primarily used for wireless communication. In contrast, Applicants submit that the claimed system and method is used as part of a wake up process in a wire-line device and therefore, use of the whole frequency spectrum is not a benefit. Furthermore, in many wire-line applications, the spectrum available to the communication device is limited and hence, it is not even possible to use the entire spectrum. By way of example and not limitation, DSL systems do not use the entire frequency spectrum but are relegated to the upper frequency bands. As a result, the Examiner’s proposed motivation of using the entire spectrum is inaccurate, is not a benefit as alleged by the Examiner, and hence not a motivation.

In summary, the motivation cited by Examiner are not motivation to combine, but simply unrelated benefits of direct sequence signals. These cited benefits are not related to the claimed

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invention. Furthermore, the alleged motivation to combine would not motivate one of ordinary skill in the art to combine Bowie with Glas because the benefits cited do not benefit the Applicants' claimed system. Because this combination of the Bowie reference and the Glas article is applied against all of the independent claims, the Applicants submit that all of these independent claims are allowable. Likewise, Applicants' dependent claims, which depend from these allowable independent claims, should also be allowed.

With respect to the amendment to independent Claim 46, the wording of the preamble has been amended to conform to the requirement that dependent Claims 47-49 have an antecedent basis from independent Claim 46. The amendment of the preamble of Claim 46 does not introduce any new matter.

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SUMMARY

Applicant asserts that Claims 1-15, 20-29 and 46-49 are in a condition for allowance and respectfully requests a notice as to the same. If any matters remain outstanding, the Examiner is invited to contact the undersigned by telephone.

Dated: _____

8/2/05

Respectfully submitted,

By: _____

Chad W. Miller
Registration No. 44,943
Weide & Miller, Ltd.
Bank West Building, 5th Floor
7251 West Lake Mead Blvd., Suite 530
Las Vegas, NV 89128
(702)-382-4804 (Pacific time)